

September Tokenomics Update

Crystal Huang, Joey Brookhart | Tuesday, September 22, 2026

Please visit the page to download the model.

Hyperscaler and Labs Update

Tokenomics Team Estimates		SemiAnalysis vs Street		
	SA Estimate	Consensus	%	\$
Amazon 3Q26				
AWS Revenue	47,574	45,455	4.7%	2,119
AWS Revenue Growth	44.1%	37.2%	6.9%	
Microsoft 1Q27				
Azure CC Growth Y/Y	48%	45%	2.8%	
Google 3Q26				
GCP Revenue	35,293	28,527	23.7%	6,766
GCP Revenue Growth	132.8%	88.2%	44.6%	
Oracle 2Q27				
OCI Growth Rate	123.4%	122.1%	1.3%	
SpaceX 3Q26				
Total AI Revenue	6,996	6,387	9.5%	609

Source: SemiAnalysis Tokenomics Model

Our September Tokenomics update adds in coverage of Oracle, SpaceX, and full CapEx builds for every hyperscaler. Going forward, we will move to a mid-month publishing schedule that better aligns with the quarterly earnings preview season.

After recent ARR reporting, OpenAI success with Astra, and other data points we have revised our 2Q OpenAI ARR and go forward NNARR growth. We now see year-end 2026 ARR for Anthropic and Open AI as \$127B and \$91B, respectively, and 2027 year-end ARR as \$321B and \$275B, respectively.

Our hyperscaler estimates are little changed, with some flow through of lower lab numbers on Bedrock, Foundry, and Vertex. We continue to see approximately 225MW of external TPU sales at GOOGL in the quarter, with our ex-TPU GCP growth number now 83% y/y driven by Anthropic spend on Vertex/Gemini Agent Enterprise Platform. Our final estimates for hyperscalers will be released in our quarterly preview note 2 weeks before the first hyperscaler earnings print. We will also release resegmented Microsoft numbers in a subsequent update.

CapEx Build

Our new CapEx build for each of the hyperscalers connects the Tokenomics model to the Accelerator, Datacenter, and TCO models. The CapEx is built bottom-up based on the schedule of accelerator shipments, the rate at which MWs come online, and non-AI IT spending. We estimate the hyperscalers to reach \$700B by the end of this year and over \$1T in 2027 with Amazon accounting for the largest absolute increase.

Tokenomics Team Estimates			SemiAnalysis vs Street	
	SA Estimate	Consensus	%	\$
Total Industry CapEx	CY27	CY27		
Amazon Total CapEx	(321,283)	(281,332)	14%	(39,951)
Microsoft Total CapEx (incl leases)	(242,689)	(235,852)	3%	(6,837)
Google Total CapEx	(339,385)	(305,721)	11%	(33,664)
Meta Total CapEx	(268,164)	(196,887)	36%	(71,277)
Oracle Total CapEx	(118,792)	(94,756)	25%	(24,036)
Total Industry CapEx	(1,290,312)	(1,114,548)	16%	(175,764)

Source: SemiAnalysis Tokenomics Model

The AI IT equipment portion starts with the quarterly deliveries by SKU from our Accelerator Model and applies the corresponding chip level CapEx/accelerator from our TCO Model with the spend being recognized in the quarter after delivery. Datacenter construction is modeled separately. Given the capacity scheduled to come online from our Datacenter Model, we apply a construction cost per MW, which is broken down by power and electrical distribution, cooling, core and shell, and other infrastructure. The current 2026 construction assumption is \$14.8M/MW with power and electrical distribution accounting for 44.1% of that, cooling 27.2%, core and shell 19.4%. Each of those line items of cost are distributed across the construction period. For hyperscalers its six quarters for power infrastructure, four for cooling, and nine for core and shell, and 3 for other construction and SpaceX being an exception given the speed at which they've demonstrated they are able to build datacenters and start getting them online. Lastly, we model non-AI IT Equipment CapEx for CPU servers and related equipment.

Oracle

The new Oracle model bridges OCI revenue to datacenter capacity by end customer across AI infrastructure for:

- OpenAI
- Meta Superintelligence
- ByteDance
- Nvidia
- AMC
- xAI

ORCL Model		No Error																
Normalized Period Date End			3/31/2024	6/30/2024	9/30/2024	12/31/2024	3/31/2025	6/30/2025	9/30/2025	12/31/2025	3/31/2026	6/30/2026	9/30/2026	12/31/2026	3/31/2027	6/30/2027	9/30/2027	12/31/2027
Normalized Calendar Period			Q1/24	Q2/24	Q3/24	Q4/24	Q1/25	Q2/25	Q3/25	Q4/25	Q1/26	Q2/26	Q3/26	Q4/26	Q1/27	Q2/27	Q3/27	Q4/27
Fiscal Period End Date			3/31/2024	6/30/2024	9/30/2024	12/31/2024	3/31/2025	6/30/2025	9/30/2025	12/31/2025	3/31/2026	6/30/2026	9/30/2026	12/31/2026	3/31/2027	6/30/2027	9/30/2027	12/31/2027
Revenue Build Overview			Units	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Q1 Total Revenue			\$M	1,819	2,040	2,298	2,444	2,632	2,869	3,142	3,459	3,809	4,197	4,614	5,067	5,554	6,074	6,626
y/y %			%	80.2%	42.9%	40.7%	32.1%	47.2%	49.8%	32.1%	87.0%	81.2%	82.2%	120.7%	128.1%	130.2%	107.9%	107.3%
q/q %			%	11%	11%	13%	11%	8%	13%	12%	22%	26%	19%	28%	27%	11%	48%	25%
2yr %			%			88%	92%	49%	49%	62%	62%	95%	124%	131%	138%	142%	127%	140%
seasonality			%	21%	24%	20%	20%	20%	22%	20%	31%	18%	21%	27%	34%	12%	27%	28%
3r			%															
Non-Recur Q1 Revenue & FY			\$M	400	460	708	814	882	889	1,147	1,645	2,208	2,792	4,641	5,267	6,191	6,714	15,891
y/y %			%	100%	15%	17%	13%	8%	1%	64%	94%	102%	101%	102%	123%	115%	84%	180%
q/q %			%	10%	8%	10%	10%	2%	12%	15%	43%	38%	25%	81%	10%	17%	18%	23%
seasonality			%	22%	22%	26%	31%	18%	21%	25%	31%	18%	19%	28%	37%	15%	23%	28%
Non-Recur Q1 Revenue & Q1/Q			\$M	200	200	208	218	218	242	302	722	888	899	1,602	1,888	1,722	4,482	2,818
y/y %			%	10%	0%	100%	114%	0%	72%	59%	213%	277%	102%	107%	117%	113%	381%	138%
q/q %			%	100%	0%	0%	11%	0%	57%	2%	189%	11%	11%	10%	22%	-13%	101%	-14%
seasonality			%	20%	24%	24%	28%	10%	27%	27%	43%	19%	17%	30%	37%	12%	23%	28%
Mix of FY Growth & Total Q1 Growth			\$M	400	460	708	814	882	889	1,147	1,645	2,208	2,792	4,641	5,267	6,191	6,714	15,891
AI			\$M	248	280	288	300	32	45	191	390	370	390	741	772	1,600	2,000	2,511
OpenAI			\$M	248	280	288	300	32	45	191	390	370	390	741	772	1,600	2,000	2,511
Meta Superintelligence			\$M	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
OpenAI (Non-Identified)			\$M	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Other Identified (Non-Identified)			\$M	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Unidentified			\$M	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Non-AI			\$M	222	180	220	300	850	844	429	71	150	150	150	150	150	150	150
Mix of FY Growth & Total Q1 Growth			%															
AI			%															
OpenAI			%															
Meta Superintelligence			%															
OpenAI (Non-Identified)			%															
Other Identified (Non-Identified)			%															
Unidentified			%															
Non-AI			%															

Source: SemiAnalysis Tokenomics Model, ORCL Sheet

The main driver in this model is the annual revenue per MW which currently ranges from \$9M-\$13.3M depending on the customer. Their business structure is simple, more capacity = more revenue opportunity, and a shift in customer mix can change the revenue earned on a per MW basis.

The RPO build separates OpenAI from other customers with OpenAI's remaining obligation declining over time as revenue is recognized.

SpaceX

The new SpaceX tab covers their AI business which includes:

- X advertising
- X and Grok subscriptions
- Data licensing and API revenue
- Cloud infrastructure services

and its related revenue, operating income, and capex estimates.

The model currently projects \$22.9B of revenue in 2026, with \$19.1B of which comes from cloud services. In the first quarter of this year, there was no cloud revenue, but we estimate the year will end with about \$50B in ARR from cloud services alone.

We build consumer subscription revenue from paying subscribers, their distribution across product tiers, and monthly pricing. X is split into Basic, Premium, and Premium+, while Grok has a separate 4-tier subscription build. Revenue takes average subscribers from the quarter, so subscriber additions flow into recognized revenue over time. We currently estimate there will be about 5.0M and 3.5M paying X and Grok subscribers generating approximately \$1.4B of combined subscription revenue.

Disclaimers

Analyst Certifications and Independence of Research.

Each of the analysts whose names appear in this report hereby certify that all the views expressed in this Report accurately reflect our personal views about any and all of the subject securities or issuers and that no part of our compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views in this Report. SemiAnalysis LLC (the “Company”) is an independent equity research provider. The Company is not a member of the Financial Industry Regulatory Authority or the Securities Investor Protection Corporation, and it is not a registered broker dealer or investment adviser.

Private Investment Disclosure.

Each analyst and/or author contributing to this Report hereby discloses that they may hold, directly or indirectly, private investments in companies, sectors, or asset classes discussed or referenced herein. Such holdings, if any, are disclosed externally with a third-party vendor. The Company requires that no author or analyst allow their personal investment positions to influence the views, opinions, analyses, or conclusions expressed in this Report. Readers should be aware that the existence of such holdings, even where disclosed, may present a potential conflict of interest, and are encouraged to weigh this accordingly when evaluating the contents of this Report.

Limitation of Research and Information.

This Report has been prepared for distribution to only qualified institutional or professional clients of the Company. The contents of this Report represent the views, opinions, and analyses of its authors. The information contained herein does not constitute financial, legal, tax or any other advice. All third-party data presented herein were obtained from publicly available sources which are believed to be reliable; however, the Company makes no warranty, express or implied, concerning the accuracy or completeness of such information. In no event shall the Company be responsible or liable for the correctness of, or update to, any such material, or for any direct, indirect, incidental or consequential loss, damage or lost opportunities (including loss of profits, revenue or goodwill) resulting from use of this data or from any investment decisions based on information or research obtained from the Company. Nothing contained in this Report or any distribution by the Company should be construed as any offer to sell, or any solicitation of an offer to buy, any security or investment. Any research or other material received should not be construed as individualized investment advice. Investment decisions should be made as part of an overall portfolio strategy and you should consult with a professional financial advisor, legal and tax advisor prior to making any investment decision.

Reproduction and Distribution Strictly Prohibited.

No user of this Report may reproduce, modify, copy, distribute, sell, resell, transmit, transfer, license, assign or publish the Report itself or any information contained therein. Notwithstanding the foregoing, clients with access to working models are permitted to alter or modify the information contained therein, provided that it is solely for such client's own use. This Report is not intended to be available or distributed for any purpose that would be deemed unlawful or otherwise prohibited by any local, state, national or international laws or regulations or would otherwise subject the Company to registration or regulation of any kind within such jurisdiction.

Copyrights, Trademarks, Intellectual Property.

The Company, and any logos or marks included in this Report are proprietary materials. The use of such terms and logos and marks without the express written consent of the Company is strictly prohibited. The copyright in the pages or in the screens of the Report, and in the information and material therein, is proprietary material owned by the Company unless otherwise indicated. The unauthorized use of any material on this Report may violate numerous statutes, regulations and laws, including, but not limited to, copyright, trademark, trade secret or patent laws.

ETF and Regulatory Status Disclaimer.

From time to time, The Company may collaborate with asset managers, issuers, sponsors, index providers or

other financial institutions in connection with the development, launch or support of exchange-traded funds (“ETFs”) and other investment products, including by providing research, market analysis, index-related research or other research related services. The Company does not sponsor, endorse, sell or promote any ETF, and makes no representation or warranty, express or implied, regarding the advisability of investing in any such ETF. In connection with the services described herein, the Company does not act as a fiduciary to any investor, fund, sponsor, issuer or other party. The Company is not registered with the U.S. Securities and Exchange Commission or any state securities authority as an investment adviser or exempt reporting adviser. The Company’s role is limited to providing research and related services, and it does not provide individualized investment advice, portfolio management, brokerage services or other services requiring registration as an investment adviser.